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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Xiaohua Huang *Pro Se* Plaintiff(s), vs. DTC Computer Supplies Corp. WE BUY USED IT EQUIPMENT Defendant(s)	Case Number: **MR. Xiaohua Huang's first amended complaint against DTC Computer Supplies Corp. for patent infringement** **Demand for Jury Trial**

Plaintiff Xiaohua Huang (hereinafter "Huang" or "Plaintiff") alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising out of U.S. Patent No. 6,744,653 (hereinafter the "'653 Patent") issued on June 1, 2004, U.S. Patent No. 6,999,331 (hereinafter the "'331 Patent") issued on Feb 14, 2006 to Xiaohua Huang and RE45259 issued on Nov.25,2014 (hereinafter the "RE259 Patent") to Xiaohua Huang. This action is brought to remedy the infringement of the '653Patent,'331patent and 'RE259Patent (collectively "patent-in-suit") This action is brought to remedy the infringement of '653Patent,'331patent and 'RE259Patent by Defendant DTC Computer Supplies Corp. (hereinafter "DTC" or "Defendant").

THE PARTIES

2. Xiaohua Huang is an individual, he currently resides at Los Gatos, California. Huang has developed the state of the art high speed and low power U.S. patented TCAM designs to build IC chips used inside of Internet IP Routers("Routers"), Wireless routers, Ethernet Switches("Switches") and Data Center Switches etc. since the year of 2000.

3. DTC is or purports to be a company with its main offices in in 9033 9th Street Rancho Cucamonga, California 91730, United States with contact telephone number (909) 466-7680. DTC has bought and sold Networking Routers and Switches to generate its revenues directly or indirectly in the United States.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq*. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). Venue is proper in this District pursuant to 28 U.S.C. §§1391(b) - (c) and 1400(b) in that Defendant has been generating revenues and profits through selling "Switches", "Routers" which infringes the '653 Patent,'331 patent and 'RE259 patent within California.

BACKGROUND FACTUAL ALLEGATION

5. A true and correct copy of the '653 Patent,'331patent and RE259patent are attached hereto as Exhibit A and B. The '653Patent and RE259patent are valid and owned by Plaintiff Mr. Huang as the inventor.

6. In Nov. 2000 "Huang" found CMOS Micro Device Inc（"CMOS"）to develop Ternary Content Addressable Memory (TCAM). "Huang" is the owner of "CMOS", "CMOS" is a California corporation and having its office in Campbell, California. TCAM are used to perform the search function in internet networking router, switches and Data Center Switches.

7. In Oct. 2001 "Huang" filed the provisional patent application titled "High-speed and low power content addressable memory (CAM) sensing circuits", some content of which was granted as US patent 6744653 "CAM cells

and differential sense circuit for content addressable memory (CAM)" in June1, 2004 and U.S. Patent No. 6,999,331 on Feb 14, 2006

8. From November, 2000 to April, 2002, Huang finished the design of ternary content addressable memory (TCAM) with 0.18um TSMC technology which are covered by the '653 Patent,'331patent and 'RE259patent. The TCAM designed by Huang is up to hundreds of times faster in speed and consume much less power than the same products in Market at that time. Then Huang shared his patent application with two Cisco executives, they were GM and VP of Router and Gigbit Switches division respectively. They both consider that Huang's patent of TCAM are the best solution among all the vendors and asked Huang to review their next generation TCAM specification and do a feasible design to evaluate the possible product performance. The design data provided by Huang is used in Cisco's products. '653Patent,'331patent and 'RE259Patent is the basic fundamentals to design high speed and low power TCAM used in 4G,5G wireless routers, Internet Router and Switches as well as Data Center Switches up to today. Since the year of 2002 the TCAM chips of Netlogic Micrsystems and IDT (acquired by Broadcom) have used '653Patent,'331patent and 'RE259Patent and those TCAM chips have been used in the Switches and Routers of Juniper Networks and other companies. The TCAM chips by using the '653Patent,'331patent and 'RE259Patent the TCAM used in Routers and Switches helps Internet transfer information Hundreds of time faster.

9. The patented TCAM developed by Huang has been recognized by the industry. In 2003 Huang was an invited speaker to present his TCAM design at networking symposium at Boston organized by the Industry Authority Linley Group. In 2015 Huang was also a presenter of MEMCON 2015 in Santa Clara convention center to present his patented TCAM design.

10. The ternary content addressable memory component are used as table look up function and used in 4G, 5G wireless router, internet router and

switches as well as data center switches to perform table look up to realize access control list(ACL), Quality of Service(QoS), VLAN, LPM, Packet forwarding and other parallel searching.

11. From the year 2000 to 2001 I designed the TCAM based on US patent 6744653,6999331 and US patent RE45259, the TCAM design was copied by a third party company called Silicon Design Solution Inc., then Silicon Design Solution sold the TCAM originally designed by me to the company called Avago Technology which used the TCAM to design the chips used in the Networking Switches (EX Switches) of Juniper Networks. Based on the data sheet, the source code and the reverse engineering data we obtained the TCAM used in Networking Switches sold by DTC including, but not limited to, Juniper Network EX Series Switches (EX2200, EX3300, EX4200, EX4300, EX4500, EX4550, EX4600, EX6200, EX8200, EX9200) have the following feature:

(a) Valid bit for each row to indicate whether the content stored in this row are valid for search or not;

(b) a differential sense amplifier to sense match line signal;

(c) TCAM cell and dummy TCAM cell;

(d) low voltage swing;.

(e) priority encoding and hierarchical priority encoding;

as well as the schematic (f) and (g),Picture1,FIG.1, FIG.2 and FIG.3 in Exhibit T. The more details of the above information is declared in Exhibit H.

The “TCAM” above infringes the claims of US patent 6744653, US patent6999331 and US patent RE45259, including but not limited to the claim 17

of US patent 6744653; the claim 1 of US patent 6999331 and the claim 29 of US patent RE45259. All those Gigabit Switches products used "TCAM " to achieve access control list(ACL), Quality of Service(QoS), VLAN, LPM and other parallel searching. Those EX series Switches products have infringed the claim17 of US patent 6744653, claim 1 of US patent 6999331 and claim 29 of US patent RE45259. The detail analysis how the TCAM used in Juniper EX Series Switches are read by claim 17 of '653 patent, claim1 of '331patent and claim 29 of 'RE259Patent is in the Expert report Exhibit T. Exhibit E shows that Juniper networks EX Series Switches use TCAM which features are also disclosed in Exhibit T and Exhibit H.

12. DTC have sold Juniper Network's EX Series Switches using TCAM which has directly infringed US patent No. 6744653,6999331 and RE45259. DTC has induced its customers to infringe the US patent No. 6744653,6999331 and RE45259 through accessing and using the TCAM function of Juniper Networks' EX Series Switches which DTC sold. DTC has made contributory infringement to US patent No. 6744653,6999331 and RE45259 through selling Juniper Networks' EX Series Switches to build the access of the Internet system which have infringed US patent No. 6744653,6999331 and RE45259 with the TCAM function of the Routers and Switches.

THE INFRINGING PRODUCTS WHICH DTC COMPUTER SUPPLIES CORP MAY HAVE SOLD

13. DTC is a company which has refurbished and sold networking Router, Switches to its customers to build networks and access the Internet Systems. Based on its company website the routers and devices which DTC sold including but not limited to:

Juniper Network EX Series Switches (EX2200, EX3300, EX4200, EX4300, EX4500, EX4550, EX4600, EX6200, EX8200, EX9200).and many networking switches of other companies. Those Juniper Network EX Series Switches contains TCAM with the features, picture and schematic described in Exhibit T and Exhibit H. Exhibit H explains how the information of TCAM used in the Networking Switches of Juniper and other companies have been obtained. Exhibit T shows the details of analysis how the TCAM (in Exhibit H) used in Juniper Network EX Series Switches have infringed claim17 of '653Patent,claim 1 of '331 patent and claim 29 of 'RE259patent.

14. DTC has induced its customers to infringe the US patent No. 6744653,699331 and RE45259 through accessing and using the TCAM function of the Routers and Switches it has sold. DTC has made contributory infringement to US patent No. 6744653,6999331 and RE45259 through selling its routers and switches to build the access of the Internet system which have infringed US patent No. 6744653,6999331 and RE45259 with the TCAM described in Exhibit T because that those TCAM have been used in the Routers and Switches of the Internet Systems.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6744653

15. Plaintiff Mr. Huang refers to and incorporates herein the allegations of Paragraphs 1-14 above.

16. On June1, 2004, U.S. Patent No.6744653 (the "'653Patent") was duly and legally issued for a "CAM cells and differential sense circuit for content addressable memory (CAM)." A true and correct copy of the '653 patent is attached hereto as Exhibit B. Xiaohua Huang as inventor is the owner of all rights, title, and interest in and to the '653 patent.

17. On information and belief, DTC has infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the'653patent through selling Juniper Network's EX Series Switches containing "TCAM " which have infringed at least claim 17 of the '653patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and(c).

18. On information and belief, DTC has induced its Customers to have infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the '653patent by transferring data through Networking Routers and Switches of Internet and Data centers. Those Networking Routers and Switches using "TCAM" which have infringed at least claim 17 of the'653patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and (c).

19. On information and belief, DTC has made contributory infringement directly, indirectly, literally, on Doctrine of Equivalent to one or more of the claims of '653patent by its customers adding its sold Juniper Network's EX Series Switches to Internet System and transferring data through the TCAM which have infringed at least claim 17 of the'653patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and(c). All those Gigabit Switches and Routers used the "TCAM " to achieve access control list(ACL), Quality of Service(QoS), VLAN, LPM and other parallel searching. ACL, QoS are the functions which those router have to use to perform its basic function, and all those function has to use TCAM which infringe claim 17 of '653patent. TCAM in the routers and switches accused are completely not a staple article or commodity of commerce suitable for substantial non-infringing use.

20. Defendant DTC's acts of infringement, inducing infringement and contributory infringement have caused damage to Xiaohua Huang, and Xiaohua Huang is entitled to recover from Defendant DTC for the damages sustained by Xiaohua Huang as a result of Defendant DTC's wrongful acts in an amount subject to proof at trial. Defendant DTC's infringement of Xiaohua Huang exclusive rights under the '653patent will continue to damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court. Defendant DTC's infringement entitle Xiaohua Huang to

recover damages under 35 U.S.C.§284 and to attorneys' fees and costs incurred in prosecuting this action under35 U.S.C. § 285.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 6999331

21. Plaintiff Mr. Huang refers to and incorporates herein the allegations of Paragraphs 1-14 above.

22. On Feb.14, 2006, U.S. Patent No.6999331 (the "'331Patent") was duly and legally issued for a "CAM cells and differential sense circuit for content addressable memory (CAM)." A true and correct copy of the '331 patent is attached hereto as Exhibit C. Xiaohua Huang as inventor is the owner of all rights, title, and interest in and to the '331 patent.

23. On information and belief, DTC has infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the'331patent through selling networking products containing "TCAM " which have infringed at least claim 1 of the '331 patent as analyzed in expert report under 35 U.S.C. § 271(a), (b) and(c).

24. On information and belief, DTC has induced its Customers to have infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the '331patent by transferring data through Networking Routers and Switches of Internet and Data centers. Those Networking Routers and Switches using "TCAM" which have infringed at least claim 1 of the'331patent as analyzed in Expert Report under 35 U.S.C. § 271(a), (b) and (c).

25. On information and belief, DTC has made contributory infringement directly, indirectly, literally, on Doctrine of Equivalent to one or more of the claims of '331 patent by its customers adding its sold network equipment to Internet System and transferring data through the TCAM which have infringed at least claim 1 of the'331patent as analyzed in Expert report under 35 U.S.C. § 271(a), (b) and(c). All those Gigabit Switches and Routers used the "TCAM " to

achieve access control list(ACL), Quality of Service(QoS), VLAN, LPM and other parallel searching. ACL, QoS are the functions which those router have to use to perform its basic function, and all those function has to use TCAM which infringe claim 1 of '331patent. TCAM in the routers and switches accused are completely not a staple article or commodity of commerce suitable for substantial non-infringing use.

26. Defendant DTC's acts of infringement, inducing infringement and contributory infringement have caused damage to Xiaohua Huang, and Xiaohua Huang is entitled to recover from Defendant DTC for the damages sustained by Xiaohua Huang as a result of DefendantDTC's wrongful acts in an amount subject to proof at trial. DefendantDTC's infringement of Xiaohua Huang exclusive rights under the '331patent will continue to damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court. DefendantDTC's infringement entitle Xiaohua Huang to recover damages under 35 U.S.C.§284 and to attorneys' fees and costs incurred in prosecuting this action under35 U.S.C. § 285.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. RE45259

27. Plaintiff refers to and incorporates herein the allegations of Paragraphs 1-14 above.

28. On November 25, 2014 U.S. Patent No. RE45259 (the"'RE259Patent") was duly and legally issued for a "Hit ahead hierarchical scalable priority encoding logic and circuits." A true and correct copy of the 'RE259patent is attached hereto as Exhibit A. Xiaohua Huang as inventor is the owner of all rights, title, and interest in and to the 'RE259 patent.

29. On information and belief, DTC has infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the'RE259 patent through buying/selling Juniper Network's EX Series

Switches containing "TCAM " which have infringed at least claim 29 of the 'RE259 patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and(c).

30. On information and belief, DTC has induced its Customers to have infringed and continue to infringe directly, indirectly, literally, on Doctrine of Equivalent one or more of the claims of the 'RE259 patent by transferring data through TCAM used in Networking Routers and Switches of Internet and Data centers. Those "TCAM" have infringed at least claim 29 of the'RE259 patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and (c).

31. On information and belief, DTC has made contributory infringement directly, indirectly, literally, on Doctrine of Equivalent to one or more of the claims of 'RE259 patent by its customers adding its sold Juniper Network's EX Series Switches to Internet System and transferring data through the TCAM which have infringed at least claim 29 of the'RE259patent as analyzed in Exhibit T under 35 U.S.C. § 271(a), (b) and(c). All those Gigabit Switches and Routers used the "TCAM " to achieve access control list(ACL), Quality of Service(QoS), VLAN, LPM and other parallel searching. ACL, QoS are the functions which those router have to use to perform its basic function, and all those function has to use TCAM which infringe claim 29 of 'RE259patent. TCAM in the routers and switches accused are completely not a staple article or commodity of commerce suitable for substantial non-infringing use.

32. Defendant DTC's acts of infringement, inducing infringement and contributory infringement have caused damage to Xiaohua Huang, and Xiaohua Huang is entitled to recover from Defendant DTC for the damages sustained by Xiaohua Huang as a result of DefendantDTC's wrongful acts in an amount subject to proof at trial. Defendant DTC's infringement of Xiaohua Huang exclusive rights under the 'RE259 patent will continue to damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court. Defendant DTC's infringement entitle Xiaohua

Huang to recover damages under 35 U.S.C.§284 and to attorneys' fees and costs incurred in prosecuting this action under35 U.S.C. § 285.

JURY DEMAND

33. Pursuant to Fed. R. Civ. P. 38(b), Plaintiff Xiaohua Huang requests a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Xiaohua Huang prays for the following relief:

(a). A judgment in favor of Xiaohua Huang that Defendant has infringed and is infringing U.S. Patent Nos. 6744653 ,6999331 and RE45259;

(b). A judgment that the 'RE259patent,'331patent and '653 patent are valid and enforceable;

(c). An order preliminarily and permanently enjoining Defendant and its subsidiaries, parents, officers, directors, agents, servants, employees, affiliates, attorneys and all others in active concert or participation with any of the foregoing, from further acts of infringement of the 'RE259patent,'331patent and '653patent;

(d). An accounting for damages resulting from Defendant's infringement of the 'RE259 patent,'331patent and '653 patent under 35 U.S.C. § 284;

(e). An assessment of interest on damages;

(f). A judgment awarding damages to Xiaohua Huang for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecuting this action, with interest pursuant to 35 U.S.C. § 285 and as otherwise provided by law;

(g). Such other and further relief as this Court may deem just and equitable.

Dated: December 28, 2020 Respectfully Submitted,

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_Exhibit A RE45259 Patent

Exhibit B 6744653 Patent

Exhibit C 6999331 patent

Exhibit E Juniper Network's EX Series Switches uses TCAM

Exhibit T Expert Report

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was filed with the Court's CM/ECF system which will provide notice on all counsel deemed to have consented to electronic service. Defendant and All other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of the foregoing document by mail and email on this day.

Dated: December 29, 2020

By /S/ Xiaohua Huang